

STATE OF MONTANA

JOB DESCRIPTION

Montana state government is an equal opportunity employer. The State shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.

Job Title: Designer I Position Number: 36024 Location: Helena

Department: Transportation

Division and Bureau: Engineering – Traffic and Safety Bureau

Section and Unit: Traffic Operations – Investigations Unit

Job Overview: The incumbent under the supervision of the crew supervisor will perform analytical and statistical analysis of the data elements compiled in Engineering and Traffic Investigations conducted for the purpose of evaluating-recommending speed limits, school zones, and crosswalk applications. Work is highly specialized in nature within the Traffic Operations Section's responsibility in carrying out the Traffic and Safety Bureau's objectives for special speed zones, school zone-crossings and pedestrian crossings on Montana's federal-aid highway system.

This responsibility includes the maintenance of the special speed limit GIS database layer(s) with ownership residing in the Traffic Operations Section and a system of files documenting projects, project status and action taken. These files contain the official historic records and informational support to the Traffic Operations Section, the Transportation Commission, other departmental offices and other state and local governing agencies.

Essential Functions (Major Duties or Responsibilities):

(60%) - Engineering and Traffic Investigation Essentials:

Scope and develop engineering and traffic investigation requests into a level from which to select spot speed studies, school zone and pedestrian crossing count studies, retrieve and summarize crash history; taking into consideration all the technical, engineering and social elements required; to arrive at a sound realistic speed zone recommendation; for the purpose of evaluating the need for additional or modification of static traffic control device(s) typically but not solely limited to signs, special school zones and crosswalk applications at locations school-age pedestrians and pedestrians cross a highway. Those duties are accomplished by designing and the development of CAD drawings, maps, charts & graphs and narratives used to portray, evaluate and define traffic operational and roadway design characteristics. Activities are to include scoping, scheduling and

defining specific work details for a subordinate traffic technician and the participation in on-site technical traffic engineering studies; development of an analysis of the information gathered and the drawing of conclusions as they relate to a special speed limit and/or a crossing site location.

(30%) Research - Database Management & Development: Research, develop, review and the update of GIS layer(s) within the Department's established database to maintain accessible accurate comprehensive data on the traffic control device(s) located within the responsibility of the Investigations Unit and the Traffic Operations Section; be available in the expansion and maintenance of future GIS layers to include other units within the Traffic Operations Section. Manage and continue in the on-going development in linking a file system documenting Investigation Unit requests, project status and action taken. Generate Investigation Unit project memorandum and design documentation to disseminate action by the Montana Transportation Commission and the Traffic Operations Engineer recommendations.

(10%) Special Assignments: Perform technical assignments of roadway characteristic elements from intersections to highway segments with the purpose of providing a design speed record to staff engineers in support of project design development. This position performs both field measurements, data collection and in-house fact finding. This information is used in project design.

Supervision

If this incumbent supervises others, please list each employee supervised and the position number:

Leadworker over a subordinate traffic technician

The number of employees supervised is: 0

The position number for each supervised employee is:

Physical and Environmental Demands:

This position is required to travel throughout the state potentially in excess of 12,000 miles per year with overnite stay. Travel predominately occurs Aril thru November. Duties are performed under the presence of high traffic volumes and rural type travel speeds, and with the ability to avoid unnecessary risks by hearing and/or seeing potential safety issues. Physical demands include work activities involving bending, pulling, walking, sitting for extended periods and the use of basic hand tools to include a 2lb hammer. Extreme weather conditions may also be encountered.

Knowledge, Skills and Abilities (Behaviors):

List the knowledge, skills and abilities (behaviors) typically required for the first day of work. You may also list preferred knowledge, skills and abilities.

Considerable knowledge of the principles, procedures and methods of Traffic Engineering Investigations comprised of spot speed studies, pedestrian studies, gap availability and parking usage, with some knowledge of the engineering philosophy in speed zoning and the relationship travel speed has to the roadway characteristics and the environment it is situated. The individual must be highly knowledgeable of technical analysis techniques, traffic data collection methods and guidelines and procedures in traffic engineering applications.

Proficient in the use of a PC or Laptop in a work setting and a variety of applications essential to the position which may include but not limited to CAD software (microstation), Excel, Word, ArcGIS-Spatial Data Mapping, Traffic Data Collection applications (Diamond, Centurion, Armadillo Tracker) hand-held radar and basic hand tools.

Minimum Qualifications (Education and Experience):

Designer I – Band 5 level 1

The required knowledge and skills for this position are a combination of education and experience equivalent to graduation from high school and four years of experience in highway analysis and design with primary emphasis in the area of traffic engineering; or an Associate Degree (two year) in drafting, or a survey area related field and two years experience in highway analysis and design with emphasis on traffic engineering; or a four-year degree in Design, CE, CET, or related field.

Certifications, licensure, or other credentials include:

Demonstrated experience using computer aided drafting and design (CADD) software packages.

Alternative qualifications include: Any combination of additional related work experience and education equivalent to the minimum qualifications.

Special Requirements:

List any other special required information for this position

- | | |
|--|--|
| <input type="checkbox"/> Fingerprint check | <input checked="" type="checkbox"/> Valid driver's license |
| <input type="checkbox"/> Background check | <input type="checkbox"/> Other; Describe |
| Union Code | Safety Responsibilities |

The specific statements shown in each section of this description are not intended to be all inclusive. They represent typical elements and criteria considered necessary to perform the job successfully.

Signatures

My signature below indicates the statements in the job description are accurate and complete.

Immediate Supervisor	Title	Date
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Administrative Review	Title	Date
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My signature below indicates that I have read this job description.

Employee	Title	Date
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Human Resources Review

Job Code Title:

Job Code Number:

Pay Band:

My signature below indicates that Human Resources has reviewed this job description for completeness and has made the following determinations:

☐ FLSA Exempt

☒ FLSA Non-Exempt

☐ Telework Available

☐ Telework Not Available

☐ Classification Complete

☐ Organizational Chart attached

Human Resources:

Signature

Title

Date